



STATE OF UTAH  
NATURAL RESOURCES  
Parks & Recreation

Scott M. Matheson, Governor  
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March 16, 1984

Mr. Phil D. Wright, MSRS  
Health Officer  
Room 105  
Court House  
55 West Center Street  
Heber City, Utah 84032

*Copy to Dr. Green*

Dear Mr. Wright:

Enclosed is a draft copy of the General Management Plan for Deer Creek Reservoir. We solicit your review and comments of this plan prior to its presentation to the Utah Parks and Recreation Board in May.

We invite you to express your concerns at a public meeting to be held at the Wasatch Mountain State Park Visitors Center, Midway, Utah, on April 12, 1984, from 7 to 9 p.m. Should you be unable to attend this meeting, please submit any written comments you may have to my attention by April 30. This will allow us to compile your comments and present them to the Board.

Sincerely,

Ross B. Elliott  
Director

bmm  
Enclosure

**DRAFT**

DEER CREEK  
GENERAL MANAGEMENT PLAN

Prepared By

The Utah Division of Parks and Recreation

Ross B. Elliott, Director



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## ORIENTATION



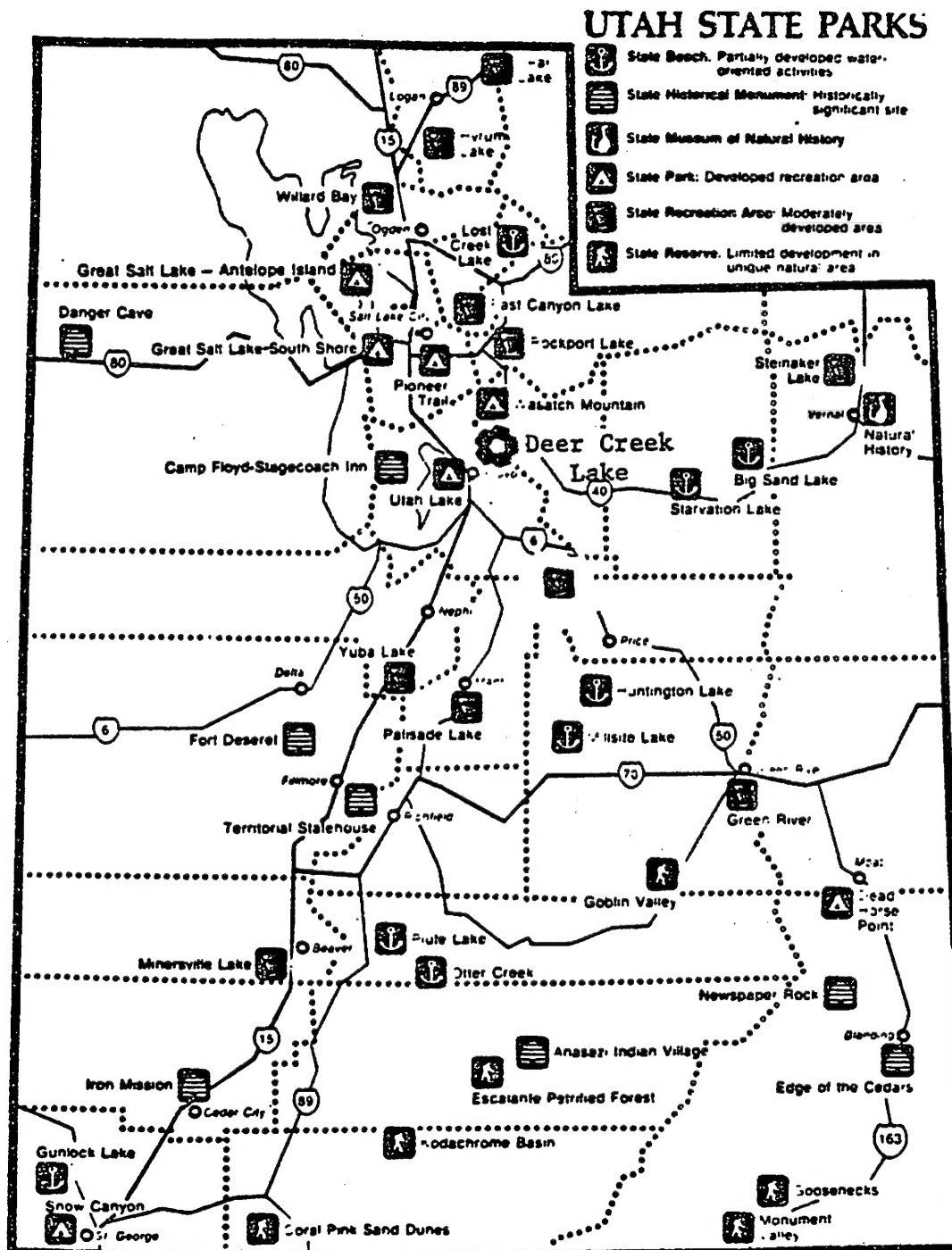
## DESCRIPTION

Deer Creek Lake lies in Wasatch County in the beautiful high, cool Heber Valley at the head of Provo Canyon. It is surrounded by the Wasatch Mountains, with majestic Mt. Timpanogos to the west and south and the beautiful Uintah Range to the north and east.

The lake's elevation is 5,417 feet, with a maximum surface area of 2,965 acres, a mean depth of 65 feet and a mean annual vertical fluctuation of 30 feet. It has a shoreline length of 18 miles, a maximum depth of 137 feet, and is about 6 miles long, with a maximum width of nearly 1 1/2 miles. Much of the lake's shoreline is steep, making it a good fishery but limiting most other shoreline activities. Plant cover around the lake is sparse, fragile, and of poor recreational quality. There is no native tree cover.

The reservoir is within a half hour drive from Provo and within an hour drive from Salt Lake City. This easy access to the major portion of Utah's population should insure the continued substantial recreational use of the reservoir. Figure 1 shows the location of Deer Creek in relationship to other parks within the state system.

Figure 1. Deer Creek State Recreational Area Location.



In March of 1983, the Division of Parks and Recreation initiated the production of this general management plan and the establishment of goals to direct the planning efforts. Following are the goals set forth in this plan:

Goals of the General Management Plan

1. To protect the reservoir's water quality.
2. To provide for continued and adequate public use of the reservoir as a recreational resource.
3. To provide adequate opportunity for concessionaire's profit and recoupment of investment.
4. To protect the scenic quality of the reservoir and its environs.
5. To provide for safe recreational uses of the resource, both in the public and the concession areas.
6. To minimize conflicts between various recreational user groups.
7. To document existing recreational uses and future demand on the resource.
8. To define the roles of various agencies in pursuing the implementation of this plan.
9. To enhance the economic vitality of the region.

Pursuant to the goals established for this plan, public input, administration and management suggestions, and research, Figure 2 recommends the general disposition of developmental zones within the park boundary. Figures 2-1 through 2-7 describe the overall concept of development in each of the zones.

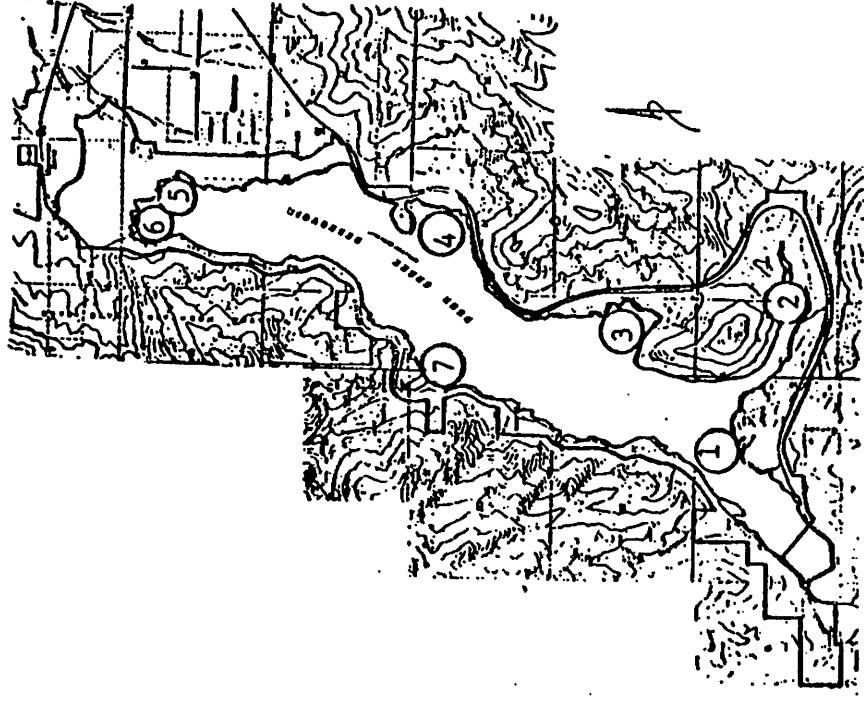


Figure 2. Developmental Zone Recommendations.

- |   |   |
|---|---|
| 1. STATE PARKS  | 3. RAINBOW BAY  |
| Maintain and extend development of the park as a "conventional" state park. Provide launching, parking, camping, and necessary support facilities, but not concession services. | Develop for boater access with improved day-use facilities.                                 |
| 2. WALLSEBURG BAY   | 4. ISLAND BOAT CAMP   |
| Develop into a state operated group-use area because of limited space and attractive, useable land.   | Develop <u>concession area</u> .  |
|   | 5. CHARLESTON BRIDGE  |
|   | Restrict to and maintain as an unimproved sportsman's access.                               |
|   | 6. CHALET AREA  |
|   | Consider in Wasatch Park Plan.  |
|   | 7. SCOTT'S HOLLOW   |
|   | Develop if future need requires day-use picnic and fishing sites, accessible by water only. |

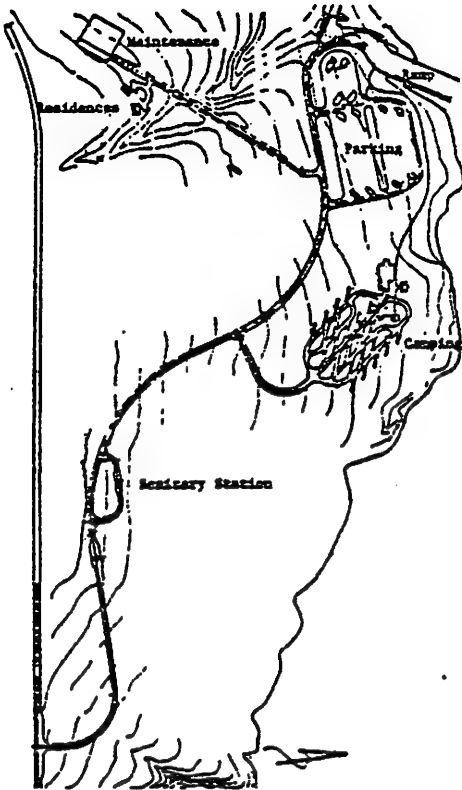


Figure 2-1. State Park.

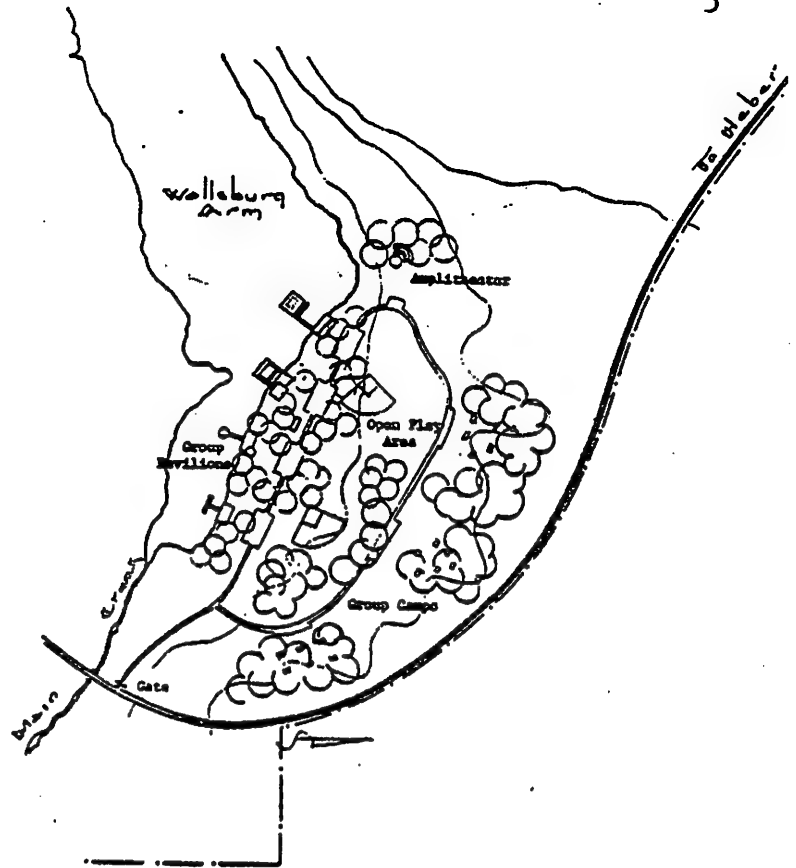


Figure 2-2. Wallburg Bay.

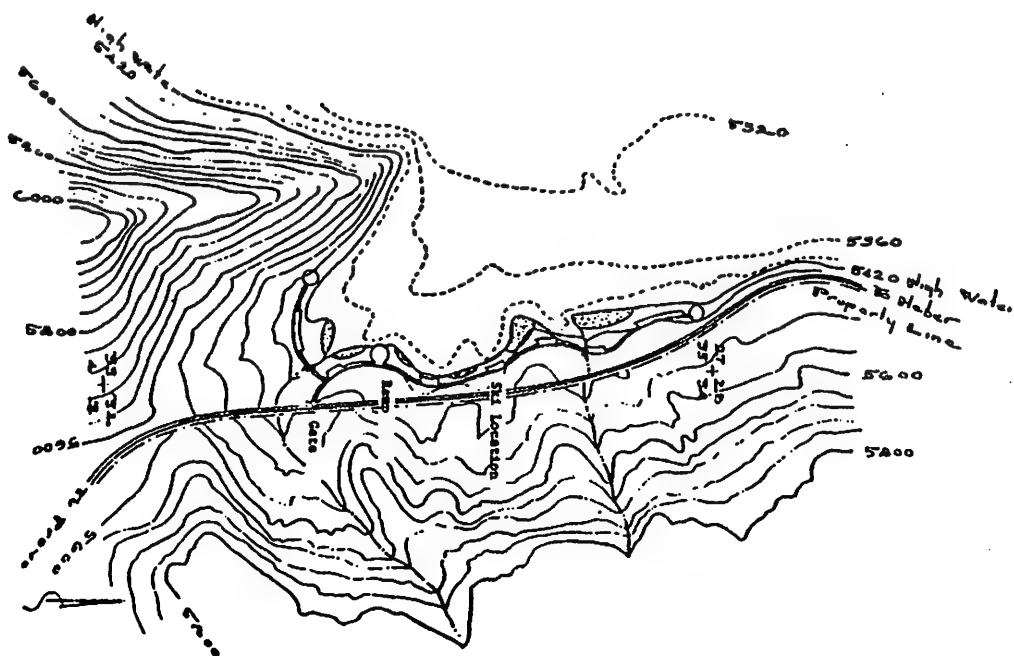


Figure 2-3. Proposed Rainbow Bay Development.

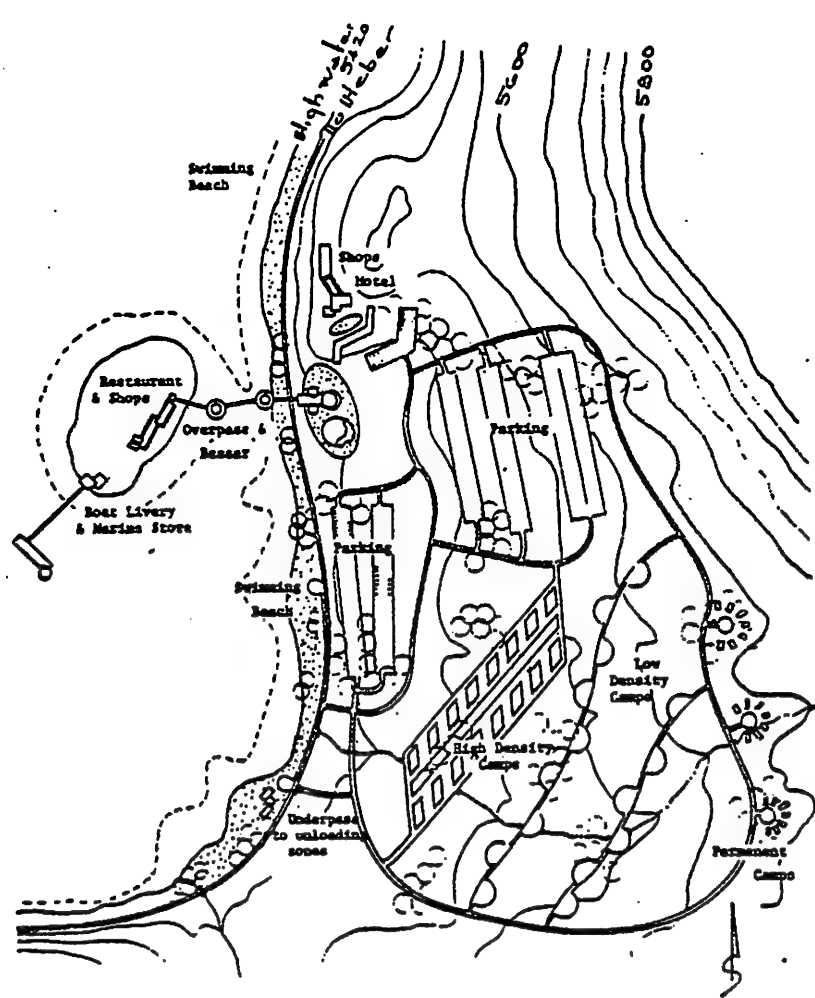


Figure 2-4. Proposed Island Park.

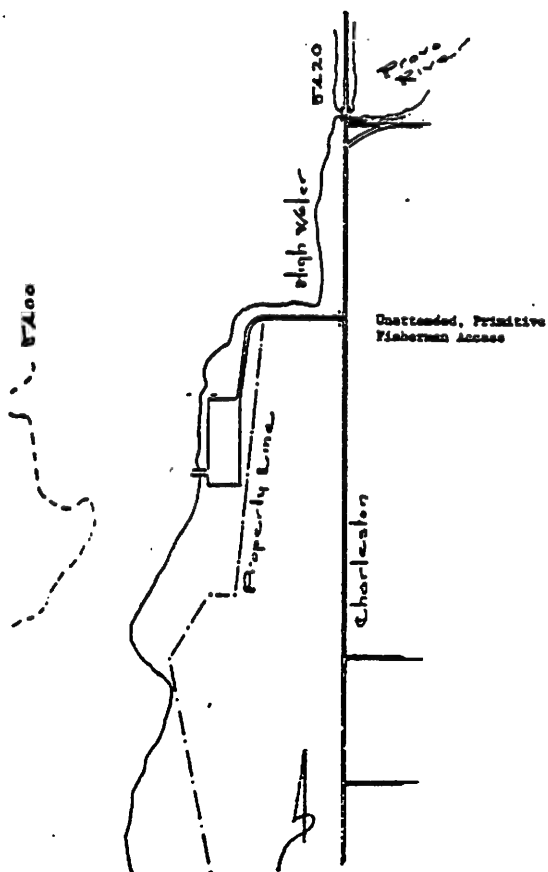


Figure 2-5.

Charleston Bridge Area.

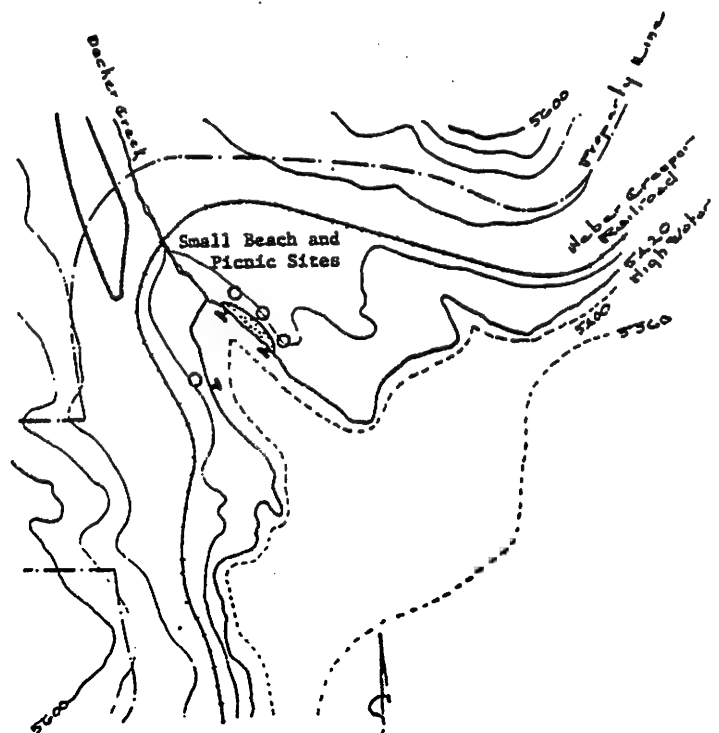


Figure 2-7.

Proposed Scott's Hollow Development.

The sequence of events at the park is an important aspect of the planning effort. The following table suggests a schedule of logical order—logical in the sense of addressing high priorities early in the development of the park, and in the necessary order of administering the areas as they are developed.

Phase Development Recommendations

Phase I

- A. Remove all concession facilities at Island Boat Camp and restructure into a day-use facility to be operated by the Division.
- B. Open for bid by all interested parties a single concession that would have proprietary rights to all operations of Wallsburg Bay, a sailboard concession at the island area, boat rental at the Charleston Bridge area, and all food, bait, snacks, or other concessions as deemed appropriate (a five year concession right).
- C. Provide for temporary improvement of the road to the sailboat area and explore a long-term solution for providing continued and adequate access.
- D. Restrict all special events to weekdays and non-holiday periods as a matter of policy.
- E. Place buoys east of existing buoys for sailing.
- F. Work with the Division of Wildlife Resources to maintain the reservoir as a productive fishery.
- G. Initiate through the Division of State Lands an extensive tree planting program.

Waste Water  
Water Supply  
Solid Waste

## Phase II

- A. Develop Rainbow Bay for extensive day use.
- B. Add a 40-unit campground at the state park.
- C. Resolve sailboat issue stated in Phase I.
- D. Explore possible land purchase across the road from Island Boat Camp for future concession location.

## Phase III

- A. Add an additional 40-unit campground to the state park.
- B. Initiate Island land purchase and phase out Snow's Boat Camp if shown feasible in Phase II. Develop this area for extensive day use.

## Phase IV

- A. Add a 40-unit campground at the state park.



DECISION INFLUENCES

The following section details items of primary consideration in the recommendations set forth in this plan. The purpose of the park and public input, the internal influences such as the carrying capacity of the park along with external influences such as surrounding recreational resources all were instrumental in prescribing actions.

#### Purpose of the Park

Utah Code Annotated 1953 Section 63-11-12 provides that the Utah State Park System shall encompass areas of scenic beauty, recreational, utility, historical, archaeological, and scientific interest. It also states that the development and operation of the parks within the system shall be, "to the end that health, happiness, recreational opportunities, and wholesome enjoyment of life of the people may be further encouraged. . ."

Under the guidelines of Utah law 63-11-12, the specific purpose of Deer Creek Lake State Recreation Area shall be to provide for the operation and administration of all recreational uses of the Deer Creek Reservoir and related lands.

#### Public Input

In June of 1983, a workshop of interested citizens was conducted to determine issues involved in developing this plan. Following is the public's prioritization of the issues:

<u>Rating of Issues</u>	<u>Response to Issues</u>
A. There needs to be one authority for administering the land and water use.	A. It is advantageous to have a single authority administer the land and water use of Deer Creek Reservoir. The Division of Parks and Recreation assumes that responsibility through the

Utah Code 73-18-1, which gives it proprietary jurisdiction over boating waters in the state. Bureau of Reclamation contracts and the establishment of the state park, with housing on the reservoir, additionally impact this responsibility.

#### Rating of Issues

- B. Concession contracts need to be longer (5 to 10 years).
- C. Rainbow Bay needs development.
- D. The reservoir needs more money for development.

#### Response to Issues

The general public should know that there are other interests at Deer Creek. The Board of Health, Provo Water Users, and the Bureau of Reclamation all prescribe conditions to be met in some degree in operating the resource.

Periodic public workshops such as the one conducted on June 2, 1983, should be held to communicate the needs of all interests.

- B. The concession suggested in Phase I-B will be for a five-year period.
- C. Rainbow Bay development is suggested in Phase II-A.
- D. Establishment of Phases I through IV will require additional

### Rating of Issues

- E. The road to Sailboat Beach needs improvement. Improved sanitation at Sailboat Beach ~~should~~ **MUST** be considered. Sailing buoys need to be placed east of existing buoys. Sailboats need to be taken off the beach at night if the owner is not with the boat.
- F. Water quality needs to be addressed. Waste water disposal needs to meet minimum standards. Some limits on length of stay in concession areas should be considered. Culinary water supply should be studied.
- G. Sailboard concession is needed. Control of the concession is needed.

development and operations costs as outlined in that section.

### Response to Issues

- E. Temporary improvements of the road to Sailboat Beach are suggested in Phase I-C, including a long-term solution to these problems. A sailing buoy will be placed under Phase I-E.
- F. The water quality issue is addressed through the concession recommendations. All overnight concession facilities will be required to observe the 14-day limit as prescribed by the Board of Health regulations for a recreational vehicle park. All sanitation requirements for these types of usage will be addressed in the concession contract and monitored by the Division.
- G. The sailboard concession will be part of the overall concession operation. Controls will be the

Rating of Issues

- H. Powerboats and water skiers conflict with fishermen and should be addressed. A wakeless speed should be considered. Zoning should be considered.
- I. Impacts on Wasatch County should be addressed.

responsibility of the concessionaire.

Response to Issues

- H. The wakeless speed is now a part of Utah's speed and proximity laws. The park manager will make this problem a major focus of park law enforcement. Although attempts to zone portions of the lake relatively unsuccessful, if increased enforcement of the speed and proximity laws prove ineffective, zoning will be considered.
- I. The impacts of the park are partly addressed in Phase I-D, where special promotions will be restricted to low use periods, thereby relieving some of the congestion along the highway. Moreover, the concession operation studied under Phase II-D would include facilities to bolster the local economy.

J. Some control of impact on the surrounding area is needed including a multiple-use philosophy.

J. The Division operates under a Board policy of multiple use. The balancing of these uses—culinary water source, recreational resource, esthetic values, etc.—is a primary consideration in the plan.

### Internal Influences

#### Visitor Profile

Research over the past three years shows the characteristics of the use of the park and of the people using it. Figure 3 shows the visitation trend from 1973 to 1982, while Figure 4 represents the general season of use of the park. Note that the season of use is changing, due to the establishment of year-round fishing.

FIGURE 3. 10 YEAR VISITATION TREND  
1973 THROUGH 1983

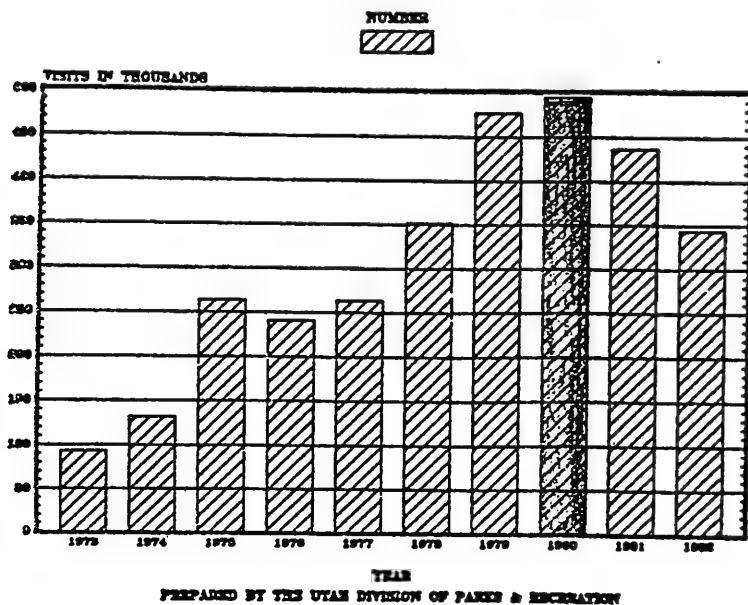


FIGURE 4. SEASONALITY OF VISITATION

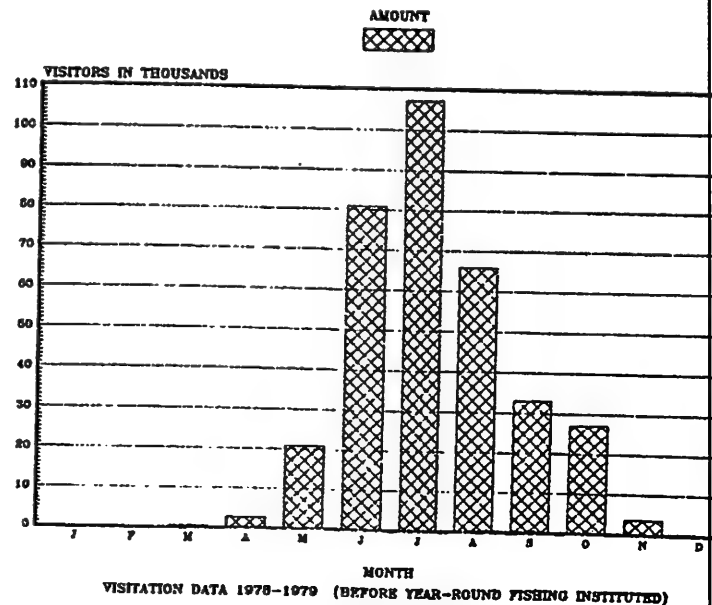


TABLE 1

## DEER CREEK 1982 VISITS BY ACTIVITY

	SIGHTSEEING	PICNICKING	CAMPING	SWIMMING	WATERSKIING	BOATING	FISHING	OTHER	TOTAL
JAN	135							13	148
FEB	474								474
MAR	350						825		1,175
APR	4,008	201	243			774			5,226
MAY	1,914	1,141	4,461	15	140	2,123	11,800	12,400	33,994
JUN	5,772	8,944	24,504	1,277	1,044	980	31,747		74,268
JUL	4,982	2,455	17,742	4,900	1,821	4,721	37,983		74,604
AUG	9,400	3,888	21,299	4,778	2,795	15,950	60,095		118,133
SEP	241	265	4,243	114	210	2,123	12,474		19,670
OCT	41	32	2,038			470	4,880		7,461
NOV	821		141			32	6,995		7,989
DEC	397		9			9			415
TOTAL	28,535	16,926	74,678	11,084	6,010	27,182	166,797	12,413	343,557

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As Table 1 indicates, the preferred activity in the park varies with the time of year. While some months are popular for almost all activities (August, for example), fishing is the most popular activity throughout the year.

Tables 2 and 3 represent the types of vehicles used to enter the park and the major recreational equipment brought into the park, respectively.

Table 2  
Types Of Vehicles Entering Park

<u>Type</u>	<u>Percentage</u>
Camper	10.2%
Motor Home	9.5%
Auto	70.7%
Van	8.2%

Table 3  
Recreation Equipment Bought By Visitors

<u>Type</u>	<u>Percentage</u>
Motor Boat	18.4%
Sail Boat	12.2%
Wind Surf	4.8%
Fish Boat	4.1%
None	56.5%



Almost 96% of the people using the park are Utah residents, and 98% of the residents come from the five counties outlined in Figure 5.

**FIGURE 5. IN-STATE VISITATION  
PERCENT BY COUNTY**

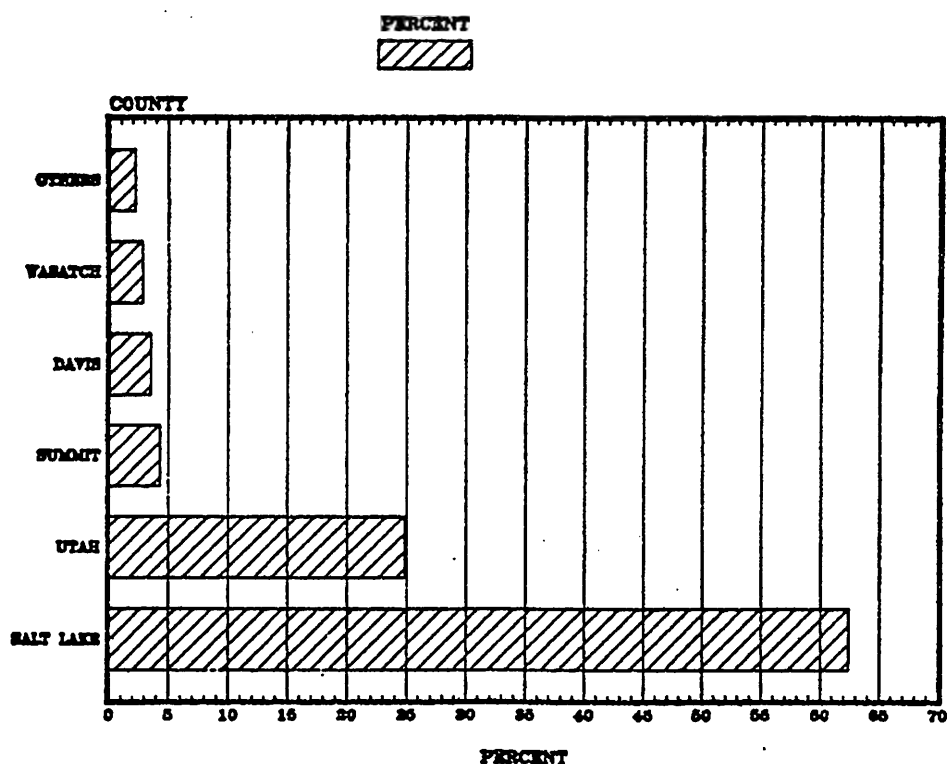


Table 4 compares primary and secondary activities or attractions to the park, and Table 5 describes why people chose Deer Creek for those activities rather than some other park.

Table 4

## Primary and Secondary Activities

<u>Primary</u>	<u>Secondary</u>
1. Fishing	1. Picnicking
2. Sailing	2. None Listed
3. Water-Skiing	3. Camping
4. Wind-Surfing	4. Boating
5. Camping	5. Fishing
6. Swimming	
7. Boating	

Table 5

## Reason for Selecting Deer Creek

<u>Reason</u>	<u>Percentage</u>
Close to Home	46.9
Like the Setting	23.1
Recommended	7.5
Good Fishing	5.4
Clean Park	4.8
Other	12.3

Other research shows that the professional/technical, crafts/construction, and retired work force categories account for almost 61% of the use of the park. More than 18% of the people visiting feel the park is crowded (mostly on weekends and holidays).

Table 6 lists recommendations for improvements.

Table 6

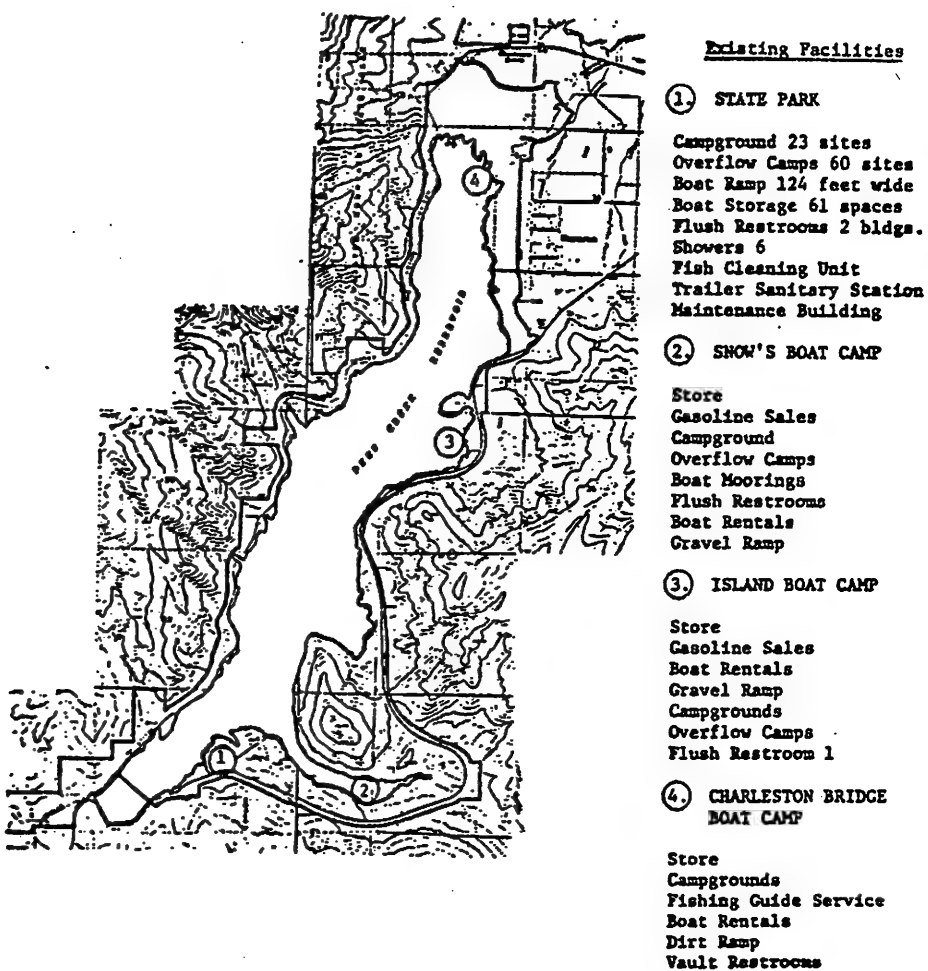
Recommendations for Improvements

<u>Recommendation</u>	<u>Percentage</u>
More/Better Beaches	11.6
More Shade	10.2
Better Rest Rooms	9.5
More Group-Use Areas	8.8
More Campsites	4.1
Better Roads	4.1

Existing Facilities

Figure 6 illustrates the existing facilities at various locations throughout the park.

Figure 6. Existing Facilities.



### Carrying Capacity

By applying standards of surface acres required for safe water activity (i.e., 20 acres per water-skier, 10 acres per boater, etc.) to the current uses of the water surface, the Division attempts to identify the carrying capacity of the park. The carrying capacity is described here as that optimum level of use that does not jeopardize the safety of the visitor.

### Total Recreation Capacity

Deer Creek Lake at maximum high water contains 2,680 surface acres of water. Because of water level fluctuation, shallow shore lines, etc., 70% of the surface is considered usable boating water, making 2,076 acres. At recommended densities, the lake will support

Fishing Boats	84
Sail Boats	43
Boaters	126
Water Skiers	<u>37</u>
TOTAL	290

This represents the recommended maximum total boats on the lake at one time. These figures show the present percentage of water surface utilization.

The 18 miles of shoreline offer fishing to a recommended maximum of 184 bank fishermen.

Developed beaches at Island Park would offer swimming to about 3,000 swimmers.

### Topography (Land Suitability)

Generally, to develop an area in a cost efficient manner, the slope of the land should not be greater than 14%. Keeping the slope from 2% to 6%, allows some drainage of the area, without imposing major modifications for construction. Figure 7 analyzes the development suitability of the various development zones.

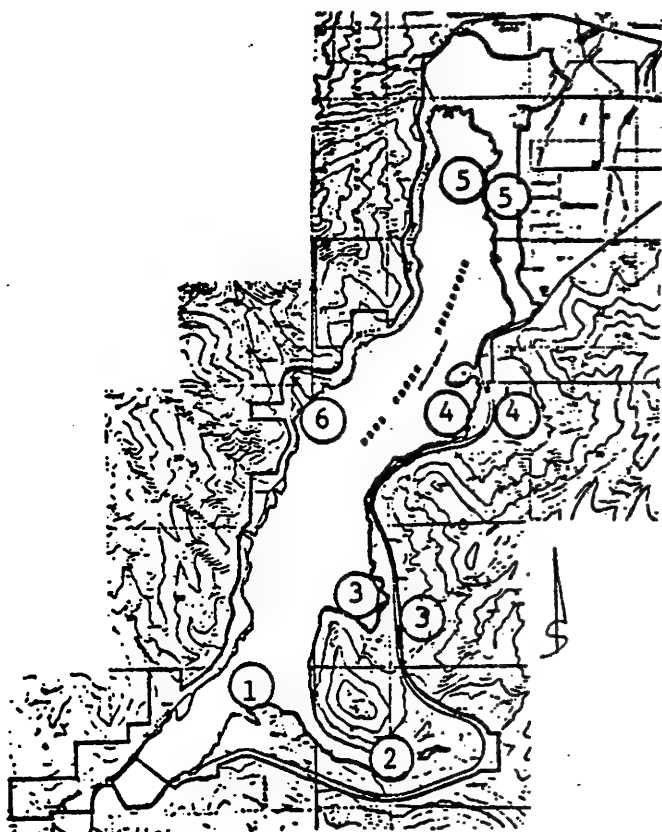


Figure 7. Land Suitability.

#### TOTAL OWNERSHIP

Developed acres . . . . .	92
Remaining developable acres . . . . .	267
Open space acres. . . . .	2,266

#### 1. STATE PARK

Developed acres. . . . .	64
Remaining developable acres. . . . .	94

#### 2. WALLSBURG BAY

Developed acres. . . . .	9
Remaining developable acres. . . . .	30

#### 3. RAINBOW BAY

Developed acres. . . . .	0
Remaining developable acres. . . . .	64

#### 4. ISLAND BOAT CAMP

Developed acres . . . . .	13
Remaining developable acres . . . . .	12

#### 5. CHARLESTON BRIDGE CAMP

Developed acres . . . . .	7
Remaining developable acres . . . . .	29

#### 6. SCOTT'S HOLLOW

Developed acres . . . . .	0
Remaining developable acres . . . . .	38

External InfluencesSurrounding Resources

Recreational participation can be compared to a shopping mall market analysis. Intervening opportunities will detract from the park's use if they either offer a closer attraction or offer a similar product. Table 7 lists those areas that may compete with Deer Creek for visitor use.

Table 7  
Surrounding Recreational Resources

## STATE PARKS VISITORS

(Attendance figures from Utah  
Division of Parks and Recreation)

<u>State Parks</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>Driving Time from Deer Creek Lake</u>
Utah Lake	No Record	254,999	561,357	1 hour
Stagecoach Inn	Undeveloped	11,993	27,905	
Camp Floyd	No Record			
Rockport Lake	No Record	208,996	322,451	
East Canyon Lake	No Record	80,406	267,804	
Pioneer Trail	No Record	261,305	517,978	
TOTAL		817,701	1,697,495	

Table 7  
Surrounding Recreational Resources  
(Continued)

<u>State Parks</u>		<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>Driving Time from Deer Creek Lake</u>
Lost Creek Lake	Undeveloped		30,851	156,833	
Great Salt Lake	Undeveloped		198,366	1,137,471	
Willard Bay	Undeveloped		257,847	605,658	
Hyrum Lake	Undeveloped		67,398	175,716	
Scofield Lake	Undeveloped		32,624	74,564	3 hours
Yuba Lake	Undeveloped		19,305	53,396	
Bear Lake	Undeveloped		81,155	210,605	
Palisade Lake	Undeveloped		48,215	20,328	
Steinaker Lake	Undeveloped		38,613	100,074	
TOTAL			<u>774,374</u>	<u>2,534,645</u>	
Huntington Lake	No Record		44,505	96,810	
Minersville Lake	Undeveloped		38,703	34,665	6 hours
Otter Creek Lake	Undeveloped		3,346	61,280	
Piute Lake	Undeveloped		5,525	2,658	
TOTAL			<u>92,079</u>	<u>195,413</u>	
GRAND TOTAL			1,684,154	4,427,553	

#### NATIONAL PARK VISITORS

(Attendance figures from  
the National Park Service)

Table 7  
Surrounding Recreational Resources  
(Continued)

<u>National Monument</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>Driving Time from Deer Creek Lake</u>
Timpanogos Cave	110,119	166,500	107,041	1 hour
<u>National Parks</u>				
Flaming Gorge Nat'l. Rec.	521,853	1,201,000	803,100	3 hours
Glen Canyon Rec.	Undeveloped	907,500	1,646,986	6 hours
TOTAL	<u>521,853</u>	<u>2,108,500</u>	<u>2,450,086</u>	
GRAND TOTAL	631,972	2,275,000	2,557,127	

#### NATIONAL FOREST VISITORS

(Attendance figures from  
the National Forest Service)



Table 7  
Surrounding Recreational Resources  
(Continued)

<u>National Forests</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>Driving Time from Deer Creek Lake</u>
Uintah	2,049,000	1,484,000	2,338,800	1 hour
Wasatch	1,817,800	2,551,000	6,740,300	
Manti-Lasal (part)	324,600	465,700	982,500	
Cache (part)	829,500	961,000	-	
<b>TOTAL</b>	<b>5,021,900</b>	<b>5,461,700</b>	<b>10,061,600</b>	

#### Land Ownership

Figure 8 shows the land currently owned by the Bureau of Reclamation, and leased to the Division for recreational purposes. Figure 9 details the ownership of the land surrounding the reservoir site, and Table 8, combined with Figure 10, describes the current uses of the reservoir site.

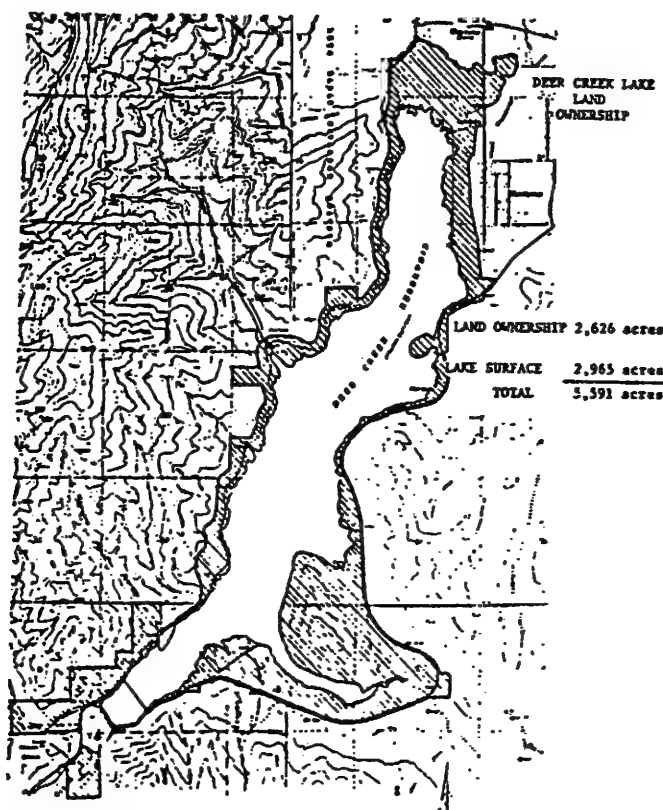


Figure 8. Deer Creek Land Ownership.

Figure 9. Surrounding Land Ownership.

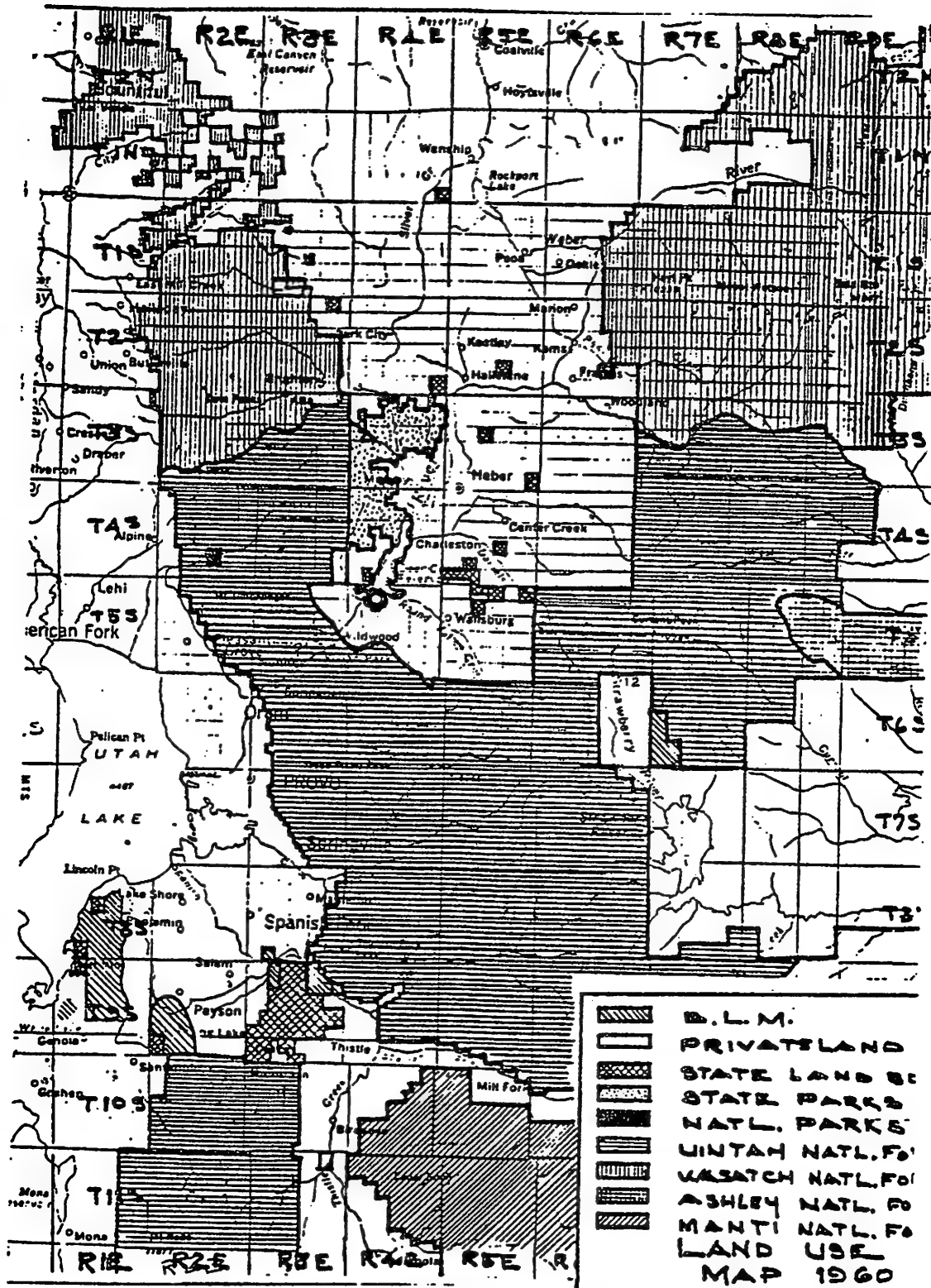
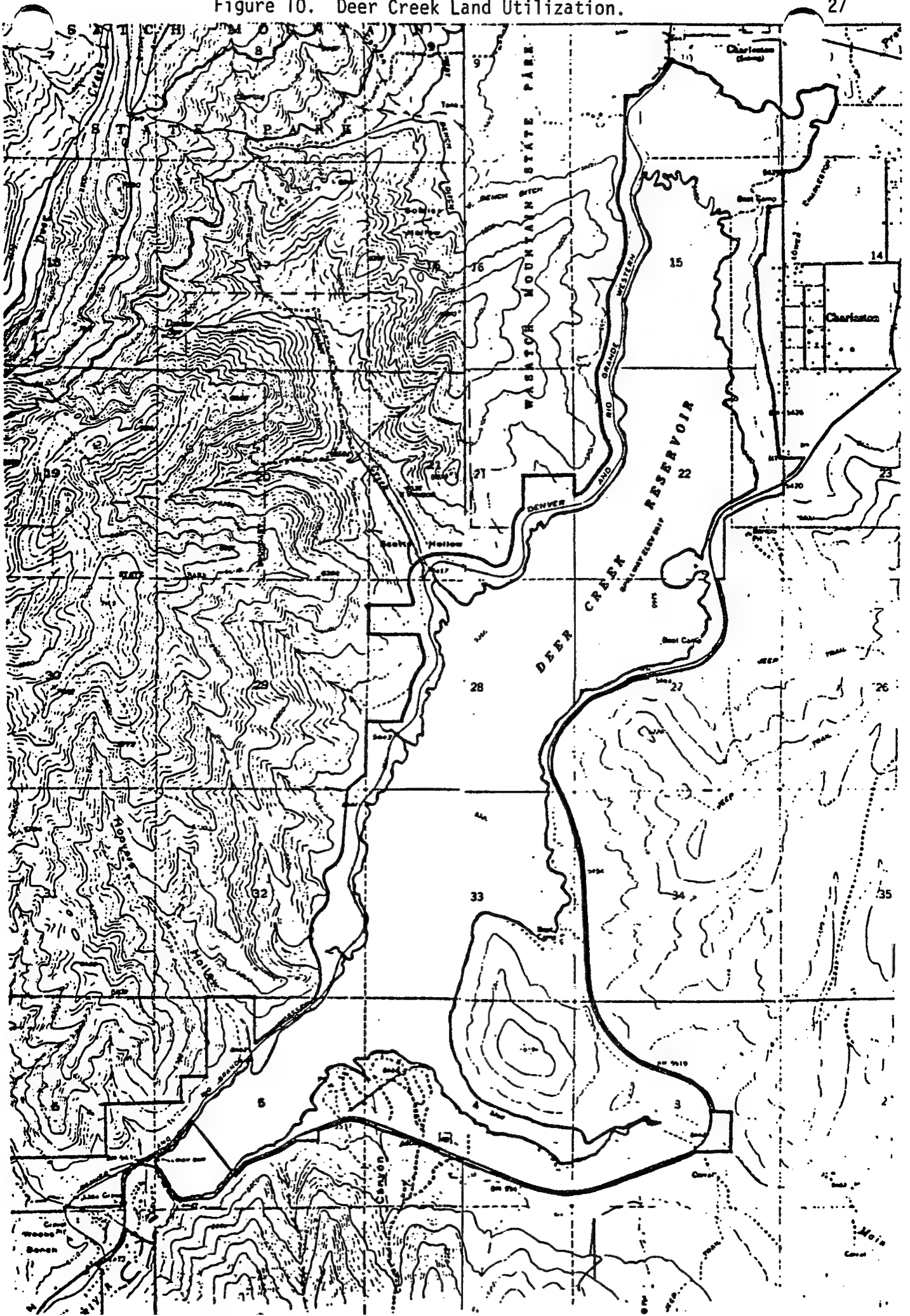


Table 8  
Deer Creek Land Utilization  
(See Following map)

Section Number	Developed Land	Concession Areas	Developable Land	Open Space
3		13	68	116
4	44		92	189
5	27		13	98
6				115
10				22
11				15
14				2
15		9	9	47
21				71
22			11	58
23			4	
27		22		9
28			10	100
32				78
33			50	97
34			11	
TOTAL	71 acres 5%	44 acres 3%	268 acres 19%	1017 acres 72%

Figure 10. Deer Creek Land Utilization.



Access

Figure 11 is presented here to better describe the favorable access of the park to populated areas.

Annual Average Daily Traffic  
1981

US-189 - 6,037  
US-40 - 5,141  
I-15 - 25,512  
I-80 - 11,927

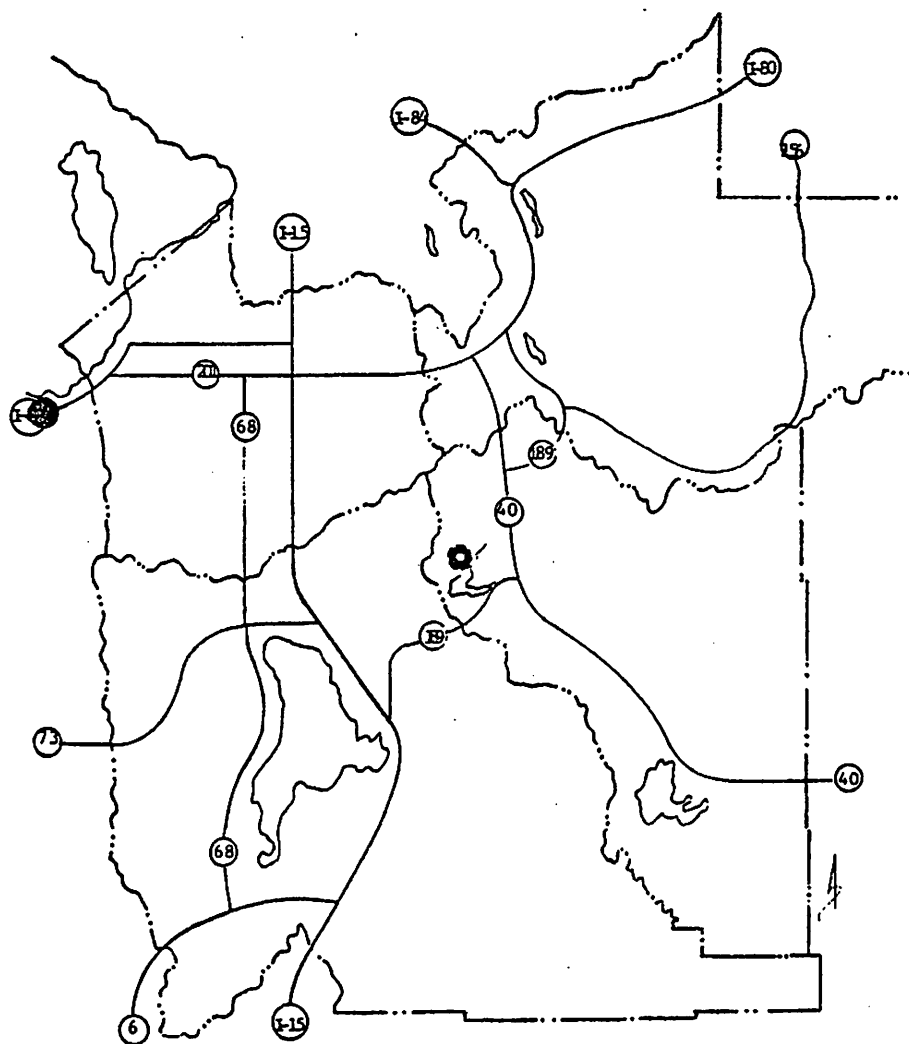


Figure 11. Highway Access.

### Population

Deer Creek State Recreational Area lies close to the Wasatch Front. Figure 12 illustrates the many Utah communities that are served by this recreational resource.

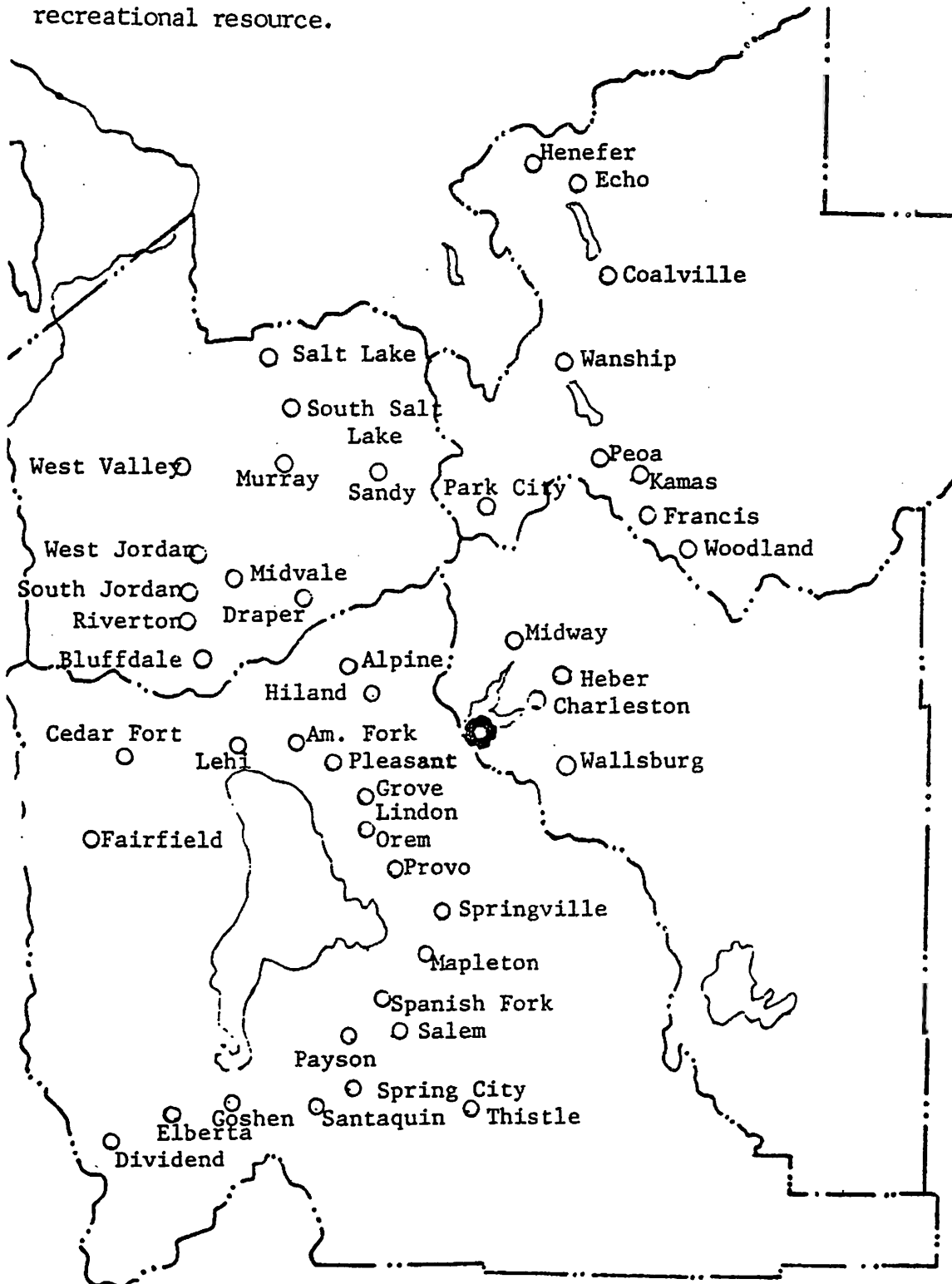


Figure 12. Population.

### Climatic Conditions

Deer Creek Reservoir is located in a high mountain valley. The reservoir spillway elevation is 5,417 feet above sea level. The annual precipitation is 15.8 inches, maximum temperature  $110^{\circ}$  and minimum  $-35^{\circ}$  with a mean of  $49^{\circ}$  and an average growing season of 124 days.

No wind measurement data is available at the proposed development site. However, Orlo Richardson, the state climatologist, compared wind conditions over the past five years, finding a total of 1,312 miles of wind per month at the Charleston Station, a total of 1,648 miles at the Flaming Gorge Station, and a total of 2,248 miles of wind per month at Utah Lake.

This "miles of wind per month" provides a comparison between these three boating areas.

Wind is a very important consideration in site location. A slight wind blows south until about ten o'clock in the morning. After an hour lull, strong prevailing winds blow north for three to four hours, normally ranging slightly below 20 miles per hour. Winds generally blow north from the village of Wallsburg, daily. Strong winds accompany local thunder showers. These storms allow boaters on the reservoir about fifteen minutes to dock boats.

### Standard/Supply Comparison

Table 9 compares standard recreational facilities to supply. As is indicative of all water-based parks near the Wasatch Front, the need for development goes well beyond the supply of facilities in all categories. Table 10 shows where many of the recreational facilities are located within the local area.

Table 9  
Standard/Supply Comparison

ACTIVITY	STANDARD	SUPPLY	INCREASED NEED
Boating	36 boats per 1000 pop. 20 acres per boat	111,532 acres	215,348 acres
Fishing	2.5 mi. of stream or shoreline per 1000 people	stream 1,127 mi. shoreline 107 mi. Total 1,234 mi.	1,035 mi.
Camping	5 sites per 1000 pop.	3,089 camps	1,453 cps.
Picnicking	10 sites per 1000 pop.	1,573 sites	7,507 sts.
Beach	1 acre per 6000 pop.	109 acres	42 acres

Table 10  
Location of Local Facilities

	Salt Lake County	Summit County	Wasatch County	Utah County	TOTAL
Power Boating Acres	0	2,313	8,400	64,015	74,728
Sail Boating Acres	14,940	2,200	8,420	64,015	89,575
Family Camp Sites	1,025	765	401	896	3,087
Group Camp Sites	41	78	8	106	233
Family Picnic Sites	685	156	86	646	1,573
Group Picnic Sites	65	11	4	43	123
Swimming Beach Acres	37	1	0	1	39
Waterski Acres	0	2,200	8,400	64,015	74,615

NOTE: Information is from Utah's Outdoor Recreation Facilities, Utah State University, 1976.



## WATER AND DAM MANAGEMENT

Although the elevation of the spillway floor at Deer Creek is 5,417, the water company has the Bureau of Reclamation's permission to fill to 5,420 in case of flooding, leaving a maximum high water of 5,420 on this project.

The conservation pool in Deer Creek is 5,303. However, upon reviewing the management program over the past 22 years, it was found that in four different years the water has been drawn down to the 5,370 elevation .

The irrigation company explains that Deer Creek will become more stable with the construction of Jordanelle Reservoir.

## THE DAM

Because of disparate water shortage along the Wasatch Front in the 1930's, Deer Creek Reservoir was approved by Congress in 1935. Although construction of the project started in the spring of 1938 and was finished 17 years later, water from the dam was available for use as early as three years after its beginning.

The dam is a zoned earthfill structure 235 feet high with a maximum length of 1,304 feet, creating a reservoir of 152,000 acre feet or a lake about 5.5 miles long and 1 mile maximum width. The reservoir stores Provo River flood water; surplus water from the Weber River, diverted by an enlarged Weber-Provo diversion canal; and surplus water from the headwaters of the Duchesne River via a 6-mile Duchesne tunnel.

The reservoir provides supplemental irrigation water for 46,609 acres of farmland; supplements domestic water for Salt Lake City, Provo, Orem, Pleasant Grove, Lindon, American Fork, and Lehi; and supplies about 12 million kilowatt hours of electricity annually.

Average annual inflow	260,400 acre feet
Total capacity	152,600 acre feet
Active capacity	149,700 acre feet
Surface area	2,680 acres
The dam structural height	235 feet
Hydraulic height	147 feet
Lap width	35 feet
Base width	1,000 feet
Crest length	1,304 feet
Total yards material	2,810 feet
Maximum Reservoir Depth	155 feet

DECISION IMPACTS

## PHASE I

Visitor Impacts

Under Phase I of this plan, the impacts to the visitor would include

1. Increased day use capacity of the reservoir
2. Reduced parking hazard at Island boat camp
3. Reduced opportunity for current users of boat camp areas
4. Reduced special uses on weekends and holidays
5. Better access to sailboat beach
6. Better sailing facilities

Management Impacts

Management will be impacted in Phase I by

1. Reduction of two of the three existing concessionnaires on the reservoir
2. Decrease in the safety hazard at the Island boat camp, resulting in better management control.
3. An anticipated increase in revenues.
4. Increased beach cleaning and garbage collection and hauling, along with other management increases, will necessitate the hiring of two seasonal employees and the purchase of one truck.

Resource Impacts

Under Phase I, the impacts to the resource would include

1. Improved sanitation on the reservoir
2. Better erosion control, particularly at the sailboat beach area
3. Better control of winter refuse

## PHASE II

Visitor Impacts

1. Increased day use
2. Increased camping
3. Improved sailboat use
4. Reduced crowding

Management Impacts

1. Two additional full time employees, along with one vehicle.
2. Increased revenue
3. Increased control over dispersed use

Resource Impacts

1. Modification of a previous dispersed use area (Rainbow Bay)
2. Improved sanitation, due to decreased dispersed use
3. Better erosion control